

ANTERIOR CHAMBER COLLAPSE SYNDROME IN A DOG

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Purpose: To describe a dog suffering anterior chamber collapse syndrome. **Methods:** A six months old mixed-breed female dog presented with left corneal edema and buphthalmos. Previous history was unknown (street dog). Complete ophthalmological examination was performed: biomicroscopy, tonometry (Tonovet), STT, fluorescein stain and ocular ultrasound. Ophthalmoscopy was not possible due to severe corneal edema. Whole eye histology was performed, with 10% buffered formalin overnight fixation (0.2ml intraocular plus immersion), paraffin embedding and H&E stain. **Results:** There were no dazzle and menace response reflexes in the left eye, while corneal and palpebral reflexes were present in both eyes. The left eye showed smooth, curved cornea with central small cysts and edema that prevented anterior chamber examination. IOP in OS was higher than normal – 46 mmHg, OD – 14mmHg. STT was in normal range OD 18 mm/min and OS 25 mm/min, respectively. Fluorescein stain did not show corneal defects. Ultrasound showed deep anterior chamber, without evident iris or lens structures. Enucleation, according to standard protocol, was selected as treatment method. Systemic broad spectrum antibacterial therapy was prescribed. Pathologically main findings were absence of lens, corneal keratitis with Descemet’s membrane rupture, broad anterior synechia and retinal detachment with pigmentary epithelium hypertrophy. Intraocular inflammatory infiltrates were not observed. These features were compatible with anterior chamber collapse syndrome. **Conclusions:** Anterior chamber collapse syndrome should be considered in young dogs affected by buphthalmos and/or glaucoma, and although difficult should be distinguished from congenital ocular disorders (as anterior chamber dysgenesis and aphakia).